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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/653,730	09/01/2000	Marvin Whiteley	UIZ-038	5801

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LAHIVE & COCKFIELD  
28 STATE STREET  
BOSTON, MA 02109

EXAMINER

HINES, JANA A

ART UNIT PAPER NUMBER

1645

DATE MAILED: 05/07/2002

7

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/653,730

Applicant(s)

WHITELEY ET AL.

Examiner

Ja-Na A Hines

Art Unit

1645

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37-CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 01 September 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-74 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-74 are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - A. Claims 1-26 are drawn to a method of identifying a modulator of quorum sensing signaling, classified in class 435, subclass 7.71.
  - B. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:1, classified in class 435, subclass 253.3.
  - C. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:2, classified in class 435, subclass 253.3.
  - D. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:3, classified in class 435, subclass 253.3.
  - E. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:4, classified in class 435, subclass 253.3.
  - F. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:5, classified in class 435, subclass 253.3.

- G. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:6, classified in class 435, subclass 253.3.
- H. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:7, classified in class 435, subclass 253.3.
- I. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:8, classified in class 435, subclass 253.3.
- J. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:9, classified in class 435, subclass 253.3.
- K. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:10, classified in class 435, subclass 253.3.
- L. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:11, classified in class 435, subclass 253.3.
- M. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:12, classified in class 435, subclass 253.3.

- N. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:13, classified in class 435, subclass 253.3.
- O. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:14, classified in class 435, subclass 253.3.
- P. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:15, classified in class 435, subclass 253.3.
- Q. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:16, classified in class 435, subclass 253.3.
- R. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:17, classified in class 435, subclass 253.3.
- S. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:18, classified in class 435, subclass 253.3.
- T. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:19, classified in class 435, subclass 253.3.

- U. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:20, classified in class 435, subclass 253.3.
- V. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:21, classified in class 435, subclass 253.3.
- W. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:22, classified in class 435, subclass 253.3.
- X. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:23, classified in class 435, subclass 253.3.
- Y. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:24, classified in class 435, subclass 253.3.
- Z. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:25, classified in class 435, subclass 253.3.
- AA. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:26, classified in class 435, subclass 253.3.

- BB. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:27, classified in class 435, subclass 253.3.
- CC. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:28, classified in class 435, subclass 253.3.
- DD. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:29, classified in class 435, subclass 253.3.
- EE. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:30, classified in class 435, subclass 253.3.
- FF. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:31, classified in class 435, subclass 253.3.
- GG. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:32, classified in class 435, subclass 253.3.
- HH. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:33, classified in class 435, subclass 253.3.

- II. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:34, classified in class 435, subclass 253.3.
- JJ. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:35, classified in class 435, subclass 253.3.
- KK. Claims 27-36 and 44-45 are drawn to method for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID NO:36, classified in class 435, subclass 253.3.
- LL. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:1, classified in class 435, subclass 252.34.
- MM. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:2, classified in class 435, subclass 252.34.
- NN. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:3, classified in class 435, subclass 252.34.
- NN. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:3, classified in class 435, subclass 252.34.
- OO. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:4, classified in class 435, subclass 252.34.
- PP. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:5, classified in class 435, subclass 252.34.



- QQ. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:6, classified in class 435, subclass 252.34.
- RR. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:7, classified in class 435, subclass 252.34.
- SS. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:8, classified in class 435, subclass 252.34.
- TT. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:9, classified in class 435, subclass 252.34.
- UU. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:10, classified in class 435, subclass 252.34.
- VV. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:11, classified in class 435, subclass 252.34.
- WW. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:12, classified in class 435, subclass 252.34.
- XX. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:13, classified in class 435, subclass 252.34.
- YY. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:14, classified in class 435, subclass 252.34.
- ZZ. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:15, classified in class 435, subclass 252.34.
- AAA. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:16, classified in class 435, subclass 252.34.

- BBB. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:17, classified in class 435, subclass 252.34.
- CCC. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:18, classified in class 435, subclass 252.34.
- DDD. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:19, classified in class 435, subclass 252.34.
- EEE. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:20, classified in class 435, subclass 252.34.
- FFF. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:21, classified in class 435, subclass 252.34.
- GGG. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:22, classified in class 435, subclass 252.34.
- HHH. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:23, classified in class 435, subclass 252.34.
- III. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:24, classified in class 435, subclass 252.34.
- JJJ. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:25, classified in class 435, subclass 252.34.
- KKK. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:26, classified in class 435, subclass 252.34.
- LLL. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:27, classified in class 435, subclass 252.34.

- MMM. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:28, classified in class 435, subclass 252.34.
- NNN. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:29, classified in class 435, subclass 252.34.
- OOO. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:30, classified in class 435, subclass 252.34.
- PPP. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:31, classified in class 435, subclass 252.34.
- QQQ. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:32, classified in class 435, subclass 252.34.
- RRR. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:33, classified in class 435, subclass 252.34.
- SSS. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:34, classified in class 435, subclass 252.34.
- TTT. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:35, classified in class 435, subclass 252.34.
- UUU. Claims 37-43 are drawn to a mutant strain of *Pseudomonas aeruginosa*, comprising SEQ ID NO:36, classified in class 435, subclass 252.34.
- VVV. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:1 classified in class 536, subclass 23.1.
- WWW. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:2, classified in class 536, subclass 23.1.

- XXX. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:3, classified in class 536, subclass23.1.
- YYY. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:4, classified in class 536, subclass23.1.
- ZZZ. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:5, classified in class 536, subclass23.1.
- A1. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:6, classified in class 536, subclass23.1.
- A2. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:7, classified in class 536, subclass23.1.
- A3. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:8 classified in class 536, subclass23.1.
- A4. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:9, classified in class 536, subclass23.1.
- A5. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:10, classified in class 536, subclass23.1.
- A6. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:11, classified in class 536, subclass23.1.
- A7. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:12, classified in class 536, subclass23.1.
- A8. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:13, classified in class 536, subclass23.1.

- A9. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:14, classified in class 536, subclass23.1.
- A10. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:15, classified in class 536, subclass23.1.
- A11. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:16, classified in class 536, subclass23.1.
- A12. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:17, classified in class 536, subclass23.1.
- A13. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:18, classified in class 536, subclass23.1.
- A14. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:19, classified in class 536, subclass23.1.
- A15. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:20, classified in class 536, subclass23.1.
- A16. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:21 classified in class 536, subclass23.1.
- A17. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:22, classified in class 536, subclass23.1.
- A18. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:23, classified in class 536, subclass23.1.
- A19. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:24, classified in class 536, subclass23.1.

- A20. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:25, classified in class 536, subclass23.1.
- A21. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:26, classified in class 536, subclass23.1.
- A22. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:27, classified in class 536, subclass23.1.
- A23. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:28, classified in class 536, subclass23.1.
- A24. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:29, classified in class 536, subclass23.1.
- A25. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:30, classified in class 536, subclass23.1.
- A26. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:31, classified in class 536, subclass23.1.
- A27. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:32, classified in class 536, subclass23.1.
- A28. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:33, classified in class 536, subclass23.1.
- A29. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:34 classified in class 536, subclass23.1.
- A30. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:35 classified in class 536, subclass23.1.

A31. Claims 46-53 are drawn to an isolated nucleic acid molecule, a vector, and a cell comprising SEQ ID NO:36, classified in class 536, subclass 23.1.

A32. Claims 54-55 are drawn to a compound that inhibits quorum signaling, classified in class 424, subclass 170.1.

A33. Claims 56-74 are drawn to a method for identifying a quorum sensing controlled gene in bacteria, classified in class 435, subclass 471.

2. The inventions are distinct, each from the other because of the following reasons:

3. Inventions A and B-KK, or A33 are related as methods involving quorum sensing signaling. Inventions A and (B-KK) and A33 are related as methods involving quorum sensing signaling. However, the methods are distinct as claimed because each group comprises different steps, requires different reagents, that have different mechanisms of operation resulting in different determinations. Further, the reagents required and method steps provided by one group are not required by any of the others. Group A is drawn to a method of identifying a modulator of quorum sensing signaling comprising providing a cell which comprises a controlled gene; the method of Groups B-KK comprises providing a mutant strain responsive to a detectable signal; and the method of Group A33 is drawn to identifying a quorum sensing controlled gene in bacteria. Therefore each group is distinct from each of the others as claimed.

Thus, each group is unrelated to the others.

4. As to Groups B-KK, the groups are drawn to a method of for identifying a modulator of quorum sensing signaling in *Pseudomonas aeruginosa* comprising SEQ ID

NO:1-36. The inventions are distinct, each from the other because of the following reasons: The methods rely upon the nucleotide sequences selected from SEQ ID NO: 1-36 which are distinct physically and structurally; and are therefore patentably distinct, each group from the other, and one sequence is not required to practice the other. Each group comprises separate and distinct nucleotide sequences that do not share a substantial structural feature disclosed as being essential to the utility of the invention.

5. Inventions LL-UUU and VVV-A31 or A32 are unrelated. Inventions are related as products, but are distinct as claimed. In the instant case the different inventions are different products with different chemical structures as taught by the instant application. All of the inventions are products, however each group has a distinct physical and chemical structure. Inventions LL-UUU are drawn to mutant strains of *Pseudomonas aeruginosa*. However, the mutant strains of groups LL-UUU, which are distinct as claimed because each group comprises a different chemical structure that is distinct physically and structurally. Group VVV-A31 is drawn to an isolated nucleic acid molecule, vector and cell, thus no other group shares products with the same physical and chemical structure, or have the same mode of operation or function. Finally, group A32 is drawn to a compound, which a distinct structure physically and chemically distinct from the other named groups. Therefore each group is distinct from each of the others as claimed and each invention is unrelated to the others.



6. As to Groups LL-UUU the groups are mutant strains of *Pseudomonas aeruginosa* comprising promoterless reporter gene comprising SEQ ID NO: 1-36. The inventions are distinct, each from the other because of the following reasons: Although there are no provisions under the section for "Related Inventions" in M.P.E.P. 806.05 for inventive groups that are directed to different products; restriction is deemed to be proper because these products appear to constitute patentably distinct inventions for the following reasons: these products appear to constitute patentably distinct inventions for the following reasons: the numbered groups are directed to substantially pure polypeptides having a sequence consisting of essentially of SEQ ID NO: 1-36 which are distinct physically, structurally, and functionally and are therefore patentably distinct, each group from the other, and one sequence is not required to practice the other. Each group comprises separate and distinct amino acid sequences that do not share a substantial structural feature disclosed as being essential to the utility of the invention.
7. As to Groups VVV-A31 the groups are drawn to an isolated nucleic acid molecules comprising a nucleotide sequences comprising SEQ ID NO: 1-36. The inventions are distinct, each from the other because of the following reasons: Although there are no provisions under the section for "Related Inventions" in M.P.E.P. 806.05 for inventive groups that are directed to different products; restriction is deemed to be proper because these products appear to constitute patentably distinct inventions for the following reasons: these products appear to constitute patentably distinct inventions for the following reasons: the numbered groups are directed to isolated nucleic acid

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molecules comprising SEQ ID NO: 1-36 which are distinct physically, structurally, and functionally and are therefore patentably distinct, each group from the other, and one sequence is not required to practice the other. Each group comprises separate and distinct amino acid sequences that do not share a substantial structural feature disclosed as being essential to the utility of the invention.

7. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their divergent subject matter, and because they require non-co-extensive searches, restriction for examination purposes as indicated is proper.
8. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).
9. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ja-Na A Hines whose telephone number is 703-305-0487. The examiner can normally be reached on Monday-Thursday and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynette Smith can be reached on 703-308-3909. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-4242 for regular communications and 703-308-4242 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0196.

Ja-Na Hines *JN*  
April 22, 2002

*Pat A. Duffy*  
PATRICIA A. DUFFY  
PRIMARY EXAMINER